2I

ABSTRACT OF THE DISCLOSURE

The present invention provides backscatter interrogators, communication systems and backscatter communication methods. According to one aspect of the present invention, a backscatter interrogator includes a data path configured to communicate a data signal; a signal generator configured to generate a carrier signal; and a modulator coupled with the data path and the signal generator, the modulator being configured to spread the data signal to define a spread data signal and amplitude modulate the carrier signal using the spread data signal, the modulator being further configured to phase modulate the carrier signal.